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Kentucky Warbler (Vol. 26, no. 4)

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Kentucky Warbler

"To sift the sparkling from the dull, and the true from the false, is the aim of every Ornithologist."

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CONFIRMATION OF THE NESTING OF THE REDSTART IN MAMMOTH CAVE NATIONAL PARK, KENTUCKY

LEONARD C. BRECHER, Louisville, Kentucky

In "A Preliminary Checklist of the Birds of the Mammoth Cave National Park" (1941) Dr. Gordon Wilson, of Bowling Green, Kentucky, who has made a special study of the birds of the park region since 1930, listed the American Redstart (*Setophaga ruticilla*) as a common summer resident, the Parula Warbler (*Parula americana*) as a rare summer resident, and the Cerulean Warbler (*Dendroica cerulea*) as a rare summer resident.

These statements were of interest because the first two species had not been known to breed in the Louisville area. However, from the frequency with which the third species is found around Louisville, one would expect it to be more common in the park. Consequently, I have made one or more short trips to the cave area each year during the breeding season with the purpose of obtaining more information on these species. It is my opinion that all three species are more prevalent than they were formerly thought to be. This is due to two factors: first, a more thorough knowledge of the birds and habitats suitable for them, causing them to be found in places hitherto overlooked; and, second, changing ecological conditions, which have created more niches for these species. Logging has been stopped for many years, the incipient forest has had these years to mature, and numerous acres of what were brushy fields have now grown up into additional young forest.

On June 2-4, 1950, I was privileged to camp in the park with Dr. Wilson, and therefore had an opportunity to

continue my efforts to locate nests of the above-mentioned species. On June 3, rain fell all day in varying intensities. Between the heaviest downpours we took the foot-trail leading from the new ferry crossing near Echo River, around the base of the bluff bordering Green River. In this bottom-land plain of the Green River Valley, at an elevation of 440 feet, a thick young mixed hardwood forest has sprung up, filling in the openings between scattered large sycamore, poplar, oak, and sundry other species of trees. The river valley is narrow, and the hill forming Mammoth Cave Ridge starts to rise rather steeply to an elevation of 800-900 feet. Here in other years I have always found Redstarts, and this year they were singing everywhere. As we walked slowly along the rain-soaked trail, about 50 feet from the emergence of Echo River, the insistent calling of a Redstart attracted my attention. Sounds were heard that seemed to come from young birds, but though we circled the spot for a radius of 25 feet, we could not locate a nest. The young trees here were about 20-30 feet in height and were matted with wild grape vines. This condition caused the sounds to diffuse under this canopy of foliage, so that wherever we moved, the calls seemed to come from overhead.

The sounds ceased at length, and we proceeded some 500 feet along the trail. Suddenly we observed a nest about 18 feet high on a horizontal branch of an ash sapling. A bird was incubating, but it did not appear to be disturbed by our presence. By shaking the tree, we caused it to leave the nest, and it proved to be a female Cerulean Warbler. Although we went on a little farther, increasing rain caused us to retrace our steps, and we saw the Cerulean Warbler back on the nest.

We returned to the car for shelter, but later, when the rain again subsided, I made another trip to the spot where we had suspected the Redstart's nest to be. Again the cries of young were heard, and adult Redstarts were seen. Evidently they were being fed, because the calls were periodic. Still no nest could be seen, and the search was abandoned for the day.

The next morning dawned cool and clear, and our plan was to visit other sections of the park. Before leaving, however, we decided to make one last trip to the Echo River trail to check again on the Redstarts. This time the calls of the young came from the undergrowth at the side of the trail. We located one fledgling, teetering and fluttering from branch to branch, then settling down to await its

parent. After a minute, we observed an adult female feed this same youngster, by this time clutching a dead twig one foot off the ground. There were at least two young, since one was heard calling about 20 feet to the right of the one mentioned above. However, lack of time prevented our searching it out. After the presence of the young had been verified, interest was turned again to the finding of the nest. Oddly enough, I looked over head and immediately above the trail where we had stood for an hour on the preceding day I saw the nest. Evidently the weight of the rain-soaked leaves had so shifted the various intervening branches that the nest had been obscured from our angle of vision at that time.

The nest was built about 15 feet above the ground, on a horizontal branch of a mature box elder tree (*Acer negundo*), approximately 4 feet out from the trunk. Several feet below this branch I found a limb sufficiently strong to permit my walking out far enough to inspect the nest. The branch was three-quarters of an inch in diameter, and the nest was cradled within an enclosure formed by four ascending vertical shoots from the branch. These shoots were instead of round, being two inches long and one and three-quarters inches wide, by one and one-quarter inches deep (inside measure). It was beautifully woven and compactly built of fine grasses intertwinde on the outside with strips of grapevine bark. Plant fibres were included, and fine plant down was also plastered to the outside to give the exterior a grayish appearance.

We then proceeded to First Creek Lake, near the western edge of the park. There we encountered a number of other Redstarts and watched a Black and White Warbler (*Mniotilta varia*) feed a young one. However, the youngster must have been out of the nest for several days, as it could fly readily.

Limited search has so far failed to disclose the nest of irregularly placed, so that the nest was slightly elliptical the Parula Warbler, although it is present throughout the breeding season in localized niches, and Dr. Wilson has ob-

served it feeding young. The Cerulean Warbler should be classed as a fairly common summer resident, as it can readily be found along the Green River cliffs. The Redstart is indeed a common summer resident of the park, and in certain areas it is rather abundant.

I have described the nest and its ecological relationships in detail, since, to the best of my knowledge, there is no other description in the literature of a Redstart nest in the state of Kentucky. The only reference to a specific instance of this species breeding in our state was made by Beckham (1885) when he presented his list of birds found around Bardstown. He simply noted, "Fresh eggs found May 27."

John Patton, in his unpublished Master's thesis describing the birds around Bear Mountain, Berea, Kentucky, observes "Feeding young out of nest, June 19, 1941." Another record substantiating the breeding of the Redstart within the state was made by Harvey B. Lovell. On June 16, 1948, on Black Mountain, at an elevation of 2700 feet, he secured a specimen of a young bird barely able to fly.

For those interested in more information concerning the nesting of the Redstart, there is a detailed study published in THE AUK (1945) by Sturm. Data and observations on behavior in prenuptial, nesting, and post-nuptial periods are given for several pairs on South Bass Island in western Lake Erie.

LITERATURE CITED

BECKHAM, CHARLES WICKLIFFE
1885. List of the birds of Nelson County, Ky. **Kentucky Geological Survey**, Sept., pp. 1-68.

WILSON, GORDON
1941. A Preliminary Check-list of the Birds of the Mammoth Cave National Park. **Kentucky Warbler**, 17:16-24.

PATTEN, JOHN
1941. Unpublished Master's Thesis, University of Kentucky.

STURM, LOUIS
1945. A Study of the Nesting Activities of the American Redstart. **Auk**, 62:189-206.

BREEDING BIRDS OF BIG BLACK MOUNTAIN

by

HARVEY B. LOVELL

Big Black Mountain is in the southeastern corner of Kentucky on the Virginia line in Harlan and Letcher Counties. The highest peak of the mountain (4150 feet), called the Doubles, is about one-half mile to the southwest of the paved road from Lynch, Kentucky, to Appalachia, Virginia.

Unlike the highest peaks in the adjacent states of Tennessee, North Carolina, and West Virginia, Big Black Mountain does not have any spruce or fir. Even pines, which are a prominent part of the vegetation on Pine Mountain, only a few miles to the west, are rare or absent on the highest ridges. A few hemlocks grow in the valleys along streams at lower elevations. The exposed rocks from 3270 feet to the summit belong to Harlan Sandstone of the Pennsylvanian series.

Along the highest ridge there are several large grassy fields with 10 to 25 acres each, called Grassy Gap. Here are the remains of several houses, one of which was still standing in 1947 but since then has burned. The fields are being invaded by the Cumberland flame azalea (*Rhododendron cumberlandense*), only recently described by Lucy Braun, deerberry, a Crataegus, and an Ilex. A fairly dense growth of hardwoods grows up the sides of the mountain to the edge of the fields and all the way over most of the spurs. This consists of sugar maple, beech, yellow birch, mountain maple, tulip poplar, and formerly chestnut. The skeletons of many large chestnuts stand out against the sky around the summit, and chestnut sprouts often grow to the height of 15 to 20 feet. In June, 1948, we found a chestnut sprout in bloom, and in 1950 some chestnut burs were found.

The first description of birds on the mountain was made by Howell (1910). Among the typical birds recorded by him were the Black-throated Blue Warbler (Cairn's), Canada Warbler (one heard singing July 24, at 3000 feet),

American Redstart between 3000 and 4000 feet, Slate-colored Junco (Carolina) on the summit, Rose-breasted Grosbeak (a male taken), and the Blue-headed Vireo (Mountain). Alexander Wetmore's party from the National Museum also visited Black Mountain in 1938 and verified the subspecific status of such birds as the Carolina Junco, Cairn's Warbler, and the Mountain Vireo. They also recorded several other birds from the mountain (Wetmore, 1940).

Roger Barbour has made several visits to the mountain. In 1941 he collected birds, reptiles, and mammals on or near the summit and recorded 50 species of birds from the summit. Of these the Winter Wren (a juvenal collected) and the Blackburnian Warbler (only one recorded) were the most unusual finds (Barbour, 1941).

George H. Breiding published a list of birds observed by Lawrence Hicks, Forest Buchanan, and himself on a two-day visit to the mountain on July 5 and 6, 1944. They recorded 53 species at all elevations, including Swainson's Warbler (Breiding, 1944), and the Brown Creeper, Yellow-bellied Sapsucker, and Least Flycatcher. No records of elevations were taken.

The author (1950) has recently described the nests of the Chestnut-sided Warbler, the Black-throated Blue Warbler, and the Slate-colored Junco from the summit.

Lucy Braun (1940) made a detailed ecological study of the vegetation of Big Black Mountain in Letcher County in relation to geological and other factors. B. B. McInteer (1940) visited the mountain and recorded several species of plants hitherto unknown in Kentucky. Roger Barbour camped on the mountain for three months with his wife and two children during the summer of 1948, while collecting data for a doctor of philosophy thesis for Cornell University. Several of his studies on the mountain are still in press, and three articles have already been published, two articles on reptiles (Barbour 1950a and b), and one recording nine new plants (Barbour and Barbour, 1950).

The present paper is based on three trips to Big Black Mountain, the first one in 1947 with Johnnie Reynolds from June 16 to 18; a second trip, accompanied by Richard Allen, Bob Cunningham, and Rodney Hayes from June 13 to 17, 1948; and the third trip from June 12 to 19, 1950, at which time I was accompanied by Dr. and Mrs. William M. Clay, David Wetherby, Richard Allen, Harriet Clark, Roberta Burkhardt, Doris Kline, Florence Wiegand, and Bob Cunningham. These trips, which occurred soon after the close of the spring semester, were too late for the nesting of the Canada Warbler. At the same time they were late enough to make it fairly certain that any birds observed were breeding species.

Since the trips were made primarily to obtain evidence for and data on the breeding of species of birds rare in Kentucky, the birds for which these data have been obtained will receive the most attention.

RUFFED GROUSE, **Bonasa umbellus.** On June 18, 1947, when we returned to our camp, a covey of Ruffed Grouse was feeding in the grassy meadow at 4100 feet. An adult female and five young flew noisily in all directions. The young birds were about half grown. Later, as we drove down the paved road towards Lynch, a tiny bird only a day or two out of the egg and a female Ruffed Grouse crossed the road at about 3500 feet. The adult grouse took off up the precipitous bank with a tremendous whir of wings, leaving behind a cloud of small feathers.

YELLOW-SHAFTED FLICKER, **Colaptes auratus.** Young birds were heard calling from a hole in a dead chestnut snag at 4000 feet on June 17, 1947. The adult Flicker was seen to visit the hole. Flickers were recorded at several other locations on the mountain.

CATBIRD, **Dumetella carolinensis.** Barbour showed me a nest eight feet up in some bushes near the dirt road at 4100 feet. The nest contained three blue eggs on June 13, 1948. The adult bird was very shy and slipped off the nest repeatedly when we approached. All three young had hatched on the fourteenth of June.

BROWN THRASHER, **Toxostoma rufum.** A nest with four young was shown me by Barbour on June 14, 1948. The nest, in some low bushes three and one-half feet from the ground, was along the road at 4100 feet. The well-fledged young began leaving the nest later in the day.

ROBIN, **Turdus migratorius.** On June 16, 1947, I heard a fledgling robin calling for food on the ground at 4000 feet. The young

bird was easily caught. It was only partly fledged and able to fly only poorly.

VEERY, **Hylocichla fuscescens.** Kathern Clay found the nest of a Veery on June 15, 1950, several hundred feet down the northwest face of the mountain. She marked a trail through the undergrowth by breaking branches on her way back to camp, which enabled her to show us the location again. The nest was one foot off the ground, placed in a crotch of a dead, prostrate branch (Fig. 1). It was surrounded by a dense growth of cinnamon ferns (**Osmunda cinnamonea**). Several trees shaded the nest, including a magnolia, one foot 6 inches in diameter, and a yellow birch, eight inches in diameter. Chestnut sprouts fifteen feet high also grew near the nest. The nest, which contained three blue eggs, was made of coarse stems and leaves and lined with fine shreds of dark bark. After a long wait, I succeeded in observing the bird as she left the nest, although she would never allow us to approach closer than 10 feet before slipping off through the ferns and underbrush. One egg hatched on June 19, and a second had hatched when the nest was last visited on the morning of June 20. The third egg was collected at that time in the belief that it was addled. However, when an attempt was made to blow it, a large embryo was found within. This appears to be the first published account of a nest of the Veery for Kentucky, where this species is known in summer only from Big Black Mountain. The Veery was, however, one of the common birds of the mountain top. Its characteristic call could be heard from all directions, especially in the evening twilight. A Veery was also observed on June 18, 1950, near the top of the ridge in Letcher County above 3200 feet.

BLUE-HEADED VIREO, **Vireo solitarius.** This vireo is one of the common mountain birds on Black Mountain. It occurs from 2500 feet all the way to the summit. It often occurs in association with yellow birch in the ravines along streams. Although no nests have been found, the species was observed on June 15, 1948, feeding young at an altitude of 2700 feet. A partly fledged bird was collected at this place. A Blue-headed Vireo was also heard and seen on Pine Mountain on June 20, 1950, also in Harlan County. Wetmore (1940) says that the Blue-headed Vireo in this region belongs to **V. s. alticolor,** usually known as the Mountain Vireo.

BLACK-THROATED BLUE WARBLER, **Dendroica caerulescens.** While hiking through the deciduous woods not far from the summit, Johnnie Reynolds discovered a nest of the Black-throated Blue Warbler at an altitude of about 3800 feet. The nest was in a tiny buckeye tree and contained 3 well-fledged young (Fig. 2). The fledglings left the nest and flew into the undergrowth when we disturbed them. This nest has been recently described in the Auk (Lovell, 1950).

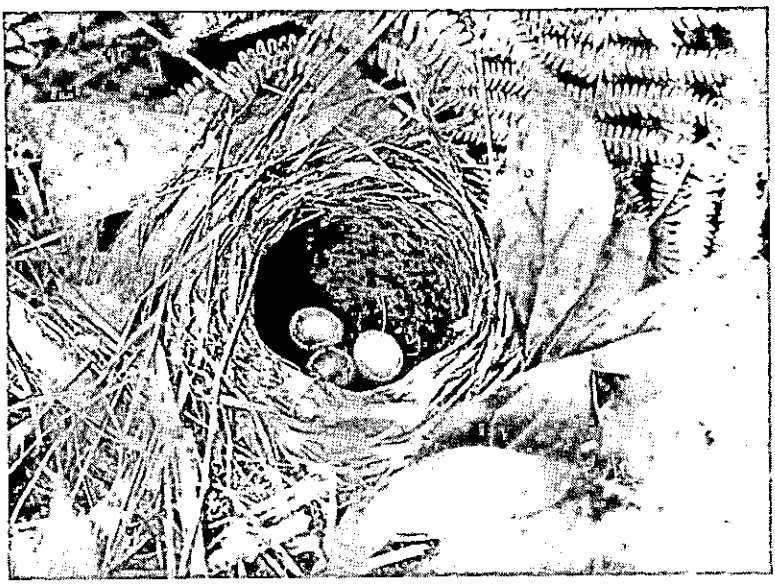

Fig. 1. NEST OF VEERY

The Black-throated Blue Warblers of this area are typical of **D. c. cairnsi** according to Wetmore (1940). Breeding (1947) reported the finding of a nest of this species containing two young on July 6, 1944, but did not give any details. The author saw and heard several Black-throated Blue Warblers near the summit of Black Mountain in Letcher County in June 20, 1950. This species is one of the more common woodland birds in the deciduous forests along the higher slopes of the mountain.

BLACK AND WHITE WARBLER, **Mniotilta varia.** This warbler was observed feeding young near the foot of the mountain at about 2200 feet on June 16, 1948.

CHESTNUT-SIDED WARBLER, **Dendroica pensylvanica.** This bird was undoubtedly the most conspicuous and characteristic bird of the shrubby open areas on and around the highest parts of Big Black Mountain. Every large patch of blackberry bushes seemed to be the haunt of a pair of these birds. Their song, which has been likened to that of the Yellow Warbler, greeted us from almost every clump of shrubs, and young birds barely able to fly were twice picked up within a few feet of our camp site. One wonders where the bird nested before man cut down the timber and created its preferred habitat of briers. It certainly must have been less abundant formerly than at present.

The first nest for Kentucky was found on June 16, 1947, and has been previously described (Lovell, 1950). This nest, which contained 4 well-fledged young, was quite bulky (Fig. 3). It was attached to a dead brier.

Figure 2

NEST OF BLACK-THROATED BLUE WARBLER (CAIRN'S)

On June 14, 1950, David Wetherby and I were searching for nests on the southeast side of the mountain. When a Chestnut-sided Warbler began to fuss at us, we searched the nearest patch of blackberry bushes systematically. A nest containing 4 newly-hatched birds was discovered in a live brier two feet four inches from the ground. The location was in an open wooded area with considerable new growth. A sugar maple ten inches in diameter partly shaded the nest. The young were almost entirely naked except for tiny patches of nestling down on the backs of their heads and about their eyes. When we returned two days later, the nest was empty. No clue to the predators could be obtained. The empty nest was collected.

On June 15, 1950, half a mile northwest of the main ridge, Richard Allen and I found a third nest in a small patch of briers on the edge of a little-used side road. The parents were feeding worms to the three large nestlings. The nest was in a live blackberry only 21 inches above the ground. The fledglings were gone when Allen returned to photograph the nest the next day.

All three nests were very similar in structure. They were woven from light-brown grasses and fastened to the branches of the briers by means of spider or worm silk. Some darker rootlets were used in the linings of two of the nests. One nest was silvery on the outside because of inclusion of some silky material from some kind of seed. Two of the nests were rounded on the underside, but the other one had an irregular mass of coarse grass extending down for 3 inches beneath the nest (Figure 3).

Fig. 3. NEST OF CHESTNUT-SIDED WARBLER.

CANADA WARBLER, **Wilsonia canadensis.** On June 18, 1947, a Canada Warbler was observed carrying food to a fledgling that could fly only poorly. In 1950, Canada Warblers were found repeatedly on wooded slopes all around the summit. Another female was observed on June 16 carrying food to a fledgling that could fly quite well.

REDSTART, **Setophaga ruticella.** The Redstart was common at lower elevations up to 3000 feet (perhaps higher) but was not observed on the summit. Adults were observed feeding young on the lower slopes of the mountain several times in both 1948 and 1950. A young bird barely able to fly was collected at 2700 feet on June 16, 1948.

ROSE-BREASTED GROSBEAK, **Pheucticus ludovicianus.** This is perhaps the most spectacular of the Black Mountain species. In 1947, a male called frequently from a dead chestnut that towered over our campsite. In 1950, the Rose-breasted Grosbeak was not found in this spot at all, and for a while we thought it had deserted the mountain. However, several pairs were discovered a few hundred feet lower down. On June 16, 1950, a male Rose-breast was observed with nesting material in his bill. We failed to locate a nesting site, although both the male and female were observed several times flying busily about. On June 18, a male Rose-breasted Grosbeak was observed in Letcher County at the very top of the mountain at an altitude of 3200 feet.

SLATE-COLORED JUNCO, **Junco hyemalis.** In 1947, we discovered a nest of this species containing 3 eggs just above the spring, at an altitude of nearly 4100 feet (Fig. 4). The nest had been placed

Fig. 4. NEST OF CAROLINA JUNCO

under a log on a moderate slope. The opening was enlarged for the photograph. This nest has been described previously (Lovell, 1950). On June 14, 1948, along a little-used side road, we found an empty nest under an over-hanging bank that had undoubtedly been used that year by a Junco. It contained a scrap of green moss on the edge and a cluster of brown moss sporophytes in the lining.

On June 16, 1950, David Wetherby and I alarmed a Junco along another small road at an altitude of about 4000 feet. By hiding in the woods at the edge of the road, we eventually observed her return to a nest. The hole was so well concealed in the bank by overhanging roots that we had difficulty finding it even after we knew almost exactly where to look. The nest, which contained three eggs, was set six inches into the ground and one foot below the top of the bank. When the nest was removed later, it was found to be compact and smooth on the underside. It fitted perfectly into a circular depression in the soft soil at the bottom of the hole. The Junco had evidently dug this hole, or at least shaped it before building the nest. As usual, the lining of the nest contained a small group of reddish-brown sporophytes of a moss. The patch of green moss which had been found on the other two nests was absent. Bob Cunningham found another Junco's nest about eleven miles southwest of our camp-site on June 16, 1950. Wetmore (1940) reported that the Juncos collected on Big Black Mountain were typical of the subspecies **J. h. carolinensis.** Although Juncos were not common anywhere on the mountain, two or three pairs were observed each day of our stay. The birds were widely distributed in all sorts of habitats, although more often found along the edge of old roads or other openings. No Juncos were recorded below 3200 feet.

FIELD SPARROW, **Spizilla pusilla.** On June 16, 1947, a nest was discovered in a dense patch of hay-scented ferns (**Dennstaedtia punctilobula**). As I walked by a rather large patch of these ferns, a Field Sparrow flew out, and a quick search revealed a most beautiful nest. It was one foot from the ground, bound to several fronds. At least 8 inches of the fragrant fronds formed a dense canopy above the nest. It contained three eggs. The site was above 4100 feet in a clearing.

OTHER BIRDS. Among the other species observed above 3000 feet on Big Black Mountain, but for which no nesting data were obtained were: Ruby-throated Hummingbird (visiting the flame azalea), Hairy Woodpecker, Downy Woodpecker, Phoebe, Wood Pewee, Blue Jay, Carolina Chickadee, White-breasted Nuthatch, Wood Thrush, Cedar Waxwing, Black-throated Green Warbler (very rare), Ovenbird, Yellow-breasted Chat, Yellow-throat, Hooded Warbler, Scarlet Tanager, American Goldfinch, and Eastern Towhee.

DISCUSSION

The complete absence of spruce and fir on Big Black Mountain indicates that the peak, in spite of its height and cool summers, must be considered in the Transitional Zone rather than in the Canadian Zone. Typical birds of the spruce forest in the Great Smoky Mountains, several hundred miles to the south, are absent. These include such species as the Red-breasted Nuthatch, Golden-crowned Kinglet, Black-capped Chickadee, Red Crossbill, and Pine Siskin.

In spite of this lack of spruce forests, there occur as summer residents on Big Black Mountain in Kentucky many birds usually associated with more northern latitudes. Typical birds of the mountain are the Veery, Blue-headed Vireo, Black-throated Blue Warbler, Chestnut-sided Warbler, Canada Warbler, Rose-breasted Grosbeak, and Slate-colored Junco. With the possible exception of the Blue-headed Vireo, these species are restricted in Kentucky to the higher slopes of Big Black Mountain, generally above 3000 feet. The Blue-headed Vireo, although fairly common on the summit, comes down to lower altitudes and also occurs on adjacent Pine Mountain. This is in agreement with observations in other states, notably Georgia, where Odum has reported this species over a wide area.

There still remain a group of 5 species, the status of which is still obscure in eastern Kentucky. These are the Winter Wren, Brown Creeper, Yellow-bellied Sapsucker, Swainson's Warbler and Blackburnian Warbler. These species have been reported only once or twice and may have been accidental occurrences or the last surviving members of a population now locally eliminated by lumbering and mining. On the other hand, further exploration of some of the coves and ridges may uncover a breeding population of these and perhaps other species.

There are still to be studied many other problems in relationship to the birds known to be present on Big Black Mountain in the summer. The nests of several of them have not yet been found in Kentucky. These include the Blue-headed Vireo, Canada Warbler, and Rose-breasted Grosbeak. More accurate information on the range of altitude for the species with northern affinities is needed. Just how low on the mountain do they breed and over how wide an area? Birds of the lowlands should be traced up the mountain to their highest breeding altitude.

Partial Bibliography of Big Black Mountain

BARBOUR, ROGER W.

1941a. A Preliminary List of the Summer Birds of the Summit of Big Black Mountain. **Ky. Warbler, 17:** 46-47.

1941b. Three New Mammal Records from Kentucky. **Journ. Mammalogy 22:** 195-196.

1950a. The Reptiles of Big Black Mountain, Harlin County, Kentucky. **Copeia,** no. 2: 100-107.

1950b. The Distribution of **Carphophis amoena** in Kentucky. **Copeia,** no. 3: 237.

BARBOUR, ROGER W. and BERNICE L.

1950. Notes on the Plants of Harlin County, Ky. **Castanea, 15:** 125.

BRAUN, E. LUCY

1940. An Ecological Transect of Black Mountain, Kentucky. **Ecol. Monographs 10:** 193-241. (An extensive survey of the mountain in Letcher County).

1941a. The Red Azalea of the Cumberlands. **Rhodora, 43:** 31-35. (Found first on summit of Black Mountain).

1941b. Notes on Kentucky Plants III. **Castanea, 6:** 10-12. (Three species of **Carex** reported from summit of Black Mountain).

1942. Notes on Kentucky Plants VI. The Genus **Solidago** in Kentucky. **Castanea, 7:** 7-10. (**Solidago Curtisii** found at 4000 feet on Black Mountain).

BREIDING, GEORGE H.

1944. Swainson's Warbler in Harlan County, Kentucky. **Redstart, 12:** 6-7.

1947. A List of Birds from Big Black Mountain. **Ky. Warbler, 23:** 37-40.

CAMP, W. H.

1936. The Red Azalea of Black Mountain, Kentucky. **Journ. N. Y. Bot. Garden, 37:** 164-165.

HOWELL, A. H.

1910. Notes on the Summer Birds of Kentucky and Tennessee. **Auk: 27:** 295-304.

LOVELL, HARVEY B.

1950. Some Breeding Records from Eastern Kentucky. **Auk, 67:** 106-108.

McINTEER, B. B.

1940. Some Noteworthy Plants of Kentucky. I. **Castanea, 5:** 103-106. (**Rubus canadensis** and **Sambucus pubens** from Black Mountain).

1944. Some Noteworthy Plants of Kentucky. II. **Castanea, 9:** 101-105. (Four species of **Magnolia** from Harlan County).

WETMORE, ALEXANDER

1940. Notes on the Birds of Kentucky. **Proc. U. S. Natl. Mus., 88:** 529-574.

FIELD NOTES

A FLIGHT OF BROADWINGED HAWKS AT OTTER CREEK PARK

At the Conference on Natural History and Wildlife at Otter Creek Park (now owned and operated by the City of Louisville) on September 23, 1950, an interesting flight of hawks was observed. A group which included Mabel Slack, Ann Stamm, Donald Summerfield, Audrey Wright, Bernice Shannon, Howard Mitchell, Fan Tabler, and Evelyn Schneider, leader, first observed the flight as they walked past the recreation hall on their way to Big Bend Camp. There were 12 Broad-winged Hawks (**Buteo platypterus**) soaring in circles so leisurely that they remained in sight for nearly 20 minutes. The flock consisted chiefly of immature hawks, but on 2 at least, the broad tail stripes were clearly evident. Several crows chased one individual from the pattern of flight close to our party, allowing identification at close range.—EVELYN J. SCHNEIDER, Louisville.

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CEDAR WAXWING NEST IN AUDUBON PARK NEAR LOUISVILLE

During the week of June 4, 1950, the soft sighing calls of a group of birds marked the presence of a flock of Cedar Waxwings feeding in a wild cherry tree. Toward the end of the week a pair separated themselves from the flock and began carrying nesting materials to an oak tree about 100 feet from the wild cherry tree. They chose grasses and twigs for their nest, refusing string and yarn placed on a rose arbor below the site. The birds worked until June 13 preparing the nest. They then settled down to laying and incubating the eggs. The nest, on the end of a branch projecting over our garage, was about 20 feet from the ground. It was fairly well protected by leaves, making it hard to observe the activity within it. The adult Cedar Waxwings would quietly come and go from the nest, and from a distance it appeared both parents were taking turns on the eggs. Because of the secluded position of the nest, it was hard to tell how many eggs were laid, when the eggs hatched, and how many hatched. On July 8 two young Waxwings, for the first time seen out of the nest, were clumsily fluttering from branch to branch with the parents following closely. At no time were either the adults or young birds observed feeding on the fround. During the week of July 9 a flock of Waxwings again came to feed in the wild cherry tree. By the end of the week all the Waxwings had moved on to other feeding territories. Inspection of the other trees in the neighborhood seemed to indicate that no other Waxwings had nested in the immediate area, nor did that pair renest as far as we could tell.—HARRIET CLARK, 3118 Meadowlark Ave., Louisville.

ANNUAL FALL MEETING

By ANNIE THACHER, Secretary

A joint fall meeting of the Kentucky Ornithological Society and the Indiana Audubon Society was held at Clifty Falls State Park in southern Indiana, October 6, 7, and 8, 1950. The meeting opened at 7:30 P. M., Friday at the Clifty Inn, which served as headquarters. Mrs. Dorothy Hobson, President of the Indiana Audubon Society, presided at a program arranged by the Indiana group.

SOME BIRDS OF ALASKA AND MEXICO, by Dan J. Webster, Zoology Department, Hanover College. A fine colored motion picture showed bird life in these two very different parts of North America.

AUTUMN COLORS, by J. L. Cooprider, Central High School, Evansville. A series of pictures of trees in autumn foliage, fruits, fall flowers, and other fall scenery were presented in beautiful Kodachrome slides.

INTERESTING INDIANA BIRDS, by R. E. Mumford, Waterfowl Biologist, Indiana Department of Conservation, Brazil. This program also consisted of a series of fine colored slides of birds, chiefly in marshes, reeds, and lakes. Nests of Cormorants, Coots, Rails, an Osprey, Red-wing, and other unusual birds were shown.

Saturday, October 7

FIELD TRIPS. A schedule of field trips began at 6:00 A. M. and continued until 4:30 P. M. led by a variety of Indiana ornithologists under the direction of Bill Barnes (president-elect). A list of 56 species was compiled for the day. A flock of Bobolinks in fall plumage was discovered. Other interesting birds included the Summer Tanager, Rose-breasted Grosbeak, Yellow-billed Cuckoo, Slate-colored Junco, White-crowned Sparrow, and a long list of fall warblers. The Indiana members were much interested in the Black and Turkey Vultures that were circling the low land between the hotel and the Ohio River. They often flew very close to the watchers on the porch, many of whom rarely see the huge birds in northern Indiana.

BUSINESS MEETING. Leonard Brecher, President of the K. O. S., presided at a business meeting at 4:30 P. M. The treasurer's report was read and accepted. A new life member (Carlyle Chamberlain) had made possible the purchase of another $100 share of stock in a building and loan company, bringing the endowment fund to $700.00, which, at 3% interest, will yield $21.00 a year.

Mr. Charles Strull suggested that the K. O. S. consider incorporating. After favorable comments by several members, President Brecher appointed him to look into the advisability of doing so.

The secretary announced that our checklists were exhausted, and it was decided to print a new one arranged in the A. O. U. order. This order will facilitate compiling bird counts for publication.

A discussion on the desirability of printing an index to volumes 1 to 20 of the KENTUCKY WARBLER did not lead to any definite action. It was agreed that there was a need for such an index, but

there is no fund available at present for the job. It was suggested that such an index should be published as a separate to be sold to members desiring it.

A committee consisting of Dr. John Bangson of Berea, W. O. Rhoads of Henderson, and Charles Strull of Louisville, chairman, presented the following slate which was elected unanimously for the ensuing year: President—Leonard Brecher; Vice-President—Virginia Smith; Secretary-treasurer—Annie Thacher; Councilors: West—W. P. Rhoads; Central—Helen Browning; East—John Bangson.

ANNUAL BANQUET. This was held at the hotel dining room at 7:00 P. M., with 116 present, 74 from Indiana, 36 from Kentucky, 3 from Tennessee, and 3 from Ohio. K. O. S. members and friends included: **Louisville**—Helen Browning, Mr. and Mrs. Leonard Brecher, Amy Deane, Mr. and Mrs. Harvey Lovell, Mr. and Mrs. Howard Mitchell, Helen and Dorothy Peil, Mabel Slack, Anne Stamm, Evelyn Schneider, Don Summerfield, Mr. and Mrs. Charles Strull, Bernice Shannon, Mr. and Mrs. S. Charles Thacher, and Audrey Wright; **Henderson**—Virginia Smith, Mr. and Mrs. W. P. Rhoads, Amelia Klutey, Mrs. Richard Stites; **Nashville, Tenn.**—A. F. Ganier; **Paris, Tenn.**—Mr. and Mrs. Eugene Cypert; **Cincinnati, Ohio**—John R. Bunnell; **Indianapolis, Ind.**—Dorothy Hobson, Margaret Knox. (We regret that we do not have a list of the Indiana Audubon Society Members present. If any K. O. S. member has been omitted, please notify either the secretary or the editor).

President Brecher then introduced the officers of both clubs.

The principal speaker of the evening, Earl Wallace, director of the Kentucky Division of Fish and Game, then spoke on THE IMPORTANCE OF CONSERVATION. He outlined the dangers that face a nation when its topsoil is gone and painted a very strong picture for the need of conservation of our resources.

Sunday, October 8

In spite of fairly steady rain, a considerable party drove to Kentucky on a field trip led by J. R. Bunnell. The first stop was made at a large cattail swamp about two miles west of Carrolton. Here were seen Coots, Sora Rails, Long-billed Marsh Wrens, Killdeer, and great flocks of Redwings and Grackles. The next stop was in Butler State Park, but because of increasing rain, only common birds were observed.

TREASURER'S REPORT—OCTOBER 1, 1950

RECEIPTS

October, 1949, balance on hand	$139.64	
Membership dues	309.50	
One life membership (C. Chamberlain)	50.00	
Junior Academy of Science Clubs	14.00	
Proceeds from 1949 Fall Meeting	6.00	
Sale of back copies of **Kentucky Warbler**	44.35	
Sale of check lists	7.40	
Commission on Audubon subscription	.50	
Jefferson Savings and Loan Ass'n Dividends	18.59	
Contribution toward cost of publishing **Bibliography of Kentucky Ornith.:**		
H. B. Lovell	63.75	
Mabel Slack	50.00	
Sale of Bibliographies	122.57	826.30

DISBURSEMENTS

Selby Smith for printing 4 issues **Warbler**	$323.76	
Selby Smith for 300 copies **Bibliography**	213.75	
1000 large envelopes	8.25	
Postage, cards, and envelopes	28.05	
Bank and state charges on account	2.20	
Binding one volume of **Kentucky Warbler**	2.00	
Courier-Journal, cuts for **Kentucky Warbler**	23.40	
Refund to Beckham Bird Club	1.00	
Refund to Murray College	1.00	
Junior Academy, prize for best bird count	5.00	
1 share in Jefferson Savings & Loan Ass'n	100.00	
Membership in Kentucky Conservation Council	2.00	
O. M. Bryens for back issues of **Warbler**	10.00	720.41
Balance		$105.89

Respectfully submitted, ANNIE THACHER, Treasurer

NEW MEMBERS IN 1950

CONTRIBUTING MEMBER

Smith, Miss Virginia, R. R. 1, Henderson.

ACTIVE, CORRESPONDING AND STUDENT MEMBERS

Allen, Richard, 1444 Goddard Ave., Louisville.
Baker, Mrs. Ernestine M., 106 S. Main St., Madisonville.
Bevens, Mrs. Raymond C., 2408 Tyler Lane, Louisville.
Boblitt, Mrs. Vella, 403 N. Third St., Bardstown.
Bunnell, John R., 1920 Baltimore Ave., Cincinnati, Ohio.
Cambron, Miss Frankie, 1502 Lietchfield St., Owensboro.
Cartwright, Miss Aleen, 4520 Meridale, Louisville.
Clark, Lora, Spottsville.
Emberton, Miss Hattie K., Tompkinsville.
Farmer, Miss Nancy M., 223 Shipp St., Louisville.
Faulkner, Mrs. Adelade, 734 Dearborn, Louisville.
Flexner, John M., 2204 Douglas Blvd., Louisville.
Gilmore, Miss Jane, 55-E Weissinger-Gaulbert, Louisville.
Hatcher, William, 1721 S. Third St., Louisville.
Hays, Myron A., Box 395, Cave City.

Hotchkiss, Dr. Arland, Biol. Dept., U. of L., Louisville.
Hudson, Mrs. Collis P., Pikeville.
Irvin, Chester C., 147 LaSalle Place, Louisville.
Jamestown High School, Jamestown, Ky.
Jones, Mrs. Finley, 808 N. Green, Henderson.
Klutey, Amelia, 1305 2nd St., Henderson.
Lopinot, A. S., Ill. Univ., Carbondale, Illinois.
Monson, Mrs. James P., 211 Battle Grove Ave., Cynthiana.
Powell, A. L., Jr., 1908 Fleming Ave., Owensboro.
Rhoads, W. P., 728 N. Main, Henderson.
Stites, Mrs. Richard, 512 Center St., Henderson.
Voiers, Mrs. Allen L., 121 Walnut St., Jeffersonville, Ind.
Library, Purdue University, LaFayette, Indiana.

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NEWS AND VIEWS

SOUTH CAROLINA BIRD LIFE, by Alexander Sprunt, Jr., and E. Burnham Chamberlain. Edited by E. Milby Burton. Contrib. Charleston Museum: XI; University of South Carolina Press, Columbia. Pp. x and 585; 35 paintings in color; numerous photographs. 1949. Price $10.—Reviewed by William M. Clay.

SOUTH CAROLINA BIRD LIFE has taken a distinguished place among the state books on birds. It is an attractive, informative, and authoritative volume, written in a direct and concise style, and possessing the originality and freshness that spring from many years of field labors. The historical foundations of this book were Wayne's "Birds of South Carolina," published in 1910, and Sprunt and Chamberlain's "Second Supplement to Arthur T. Wayne's 'Birds of South Carolina'," published in 1931.

After a foreword by the editor, the book begins with a section on the history of ornithology in South Carolina. Most of the great names in American ornithology appear here, from Catesby, Bartram, Wilson, and Audubon down to those of the present time. Indeed, the type localities of 77 species and subspecies of birds are within the state of South Carolina, as shown in a list. About six pages then are devoted to a description of the physiographic regions of South Carolina. The next five pages, "on studying birds," are valuable reading for the beginner.

The greater part of the book—more than 500 pages—is given to an account of the avifauna, beginning with the loons and ending with the perching birds. This is followed by an hypothetical list, a few addenda, literature cited, and an index.

Four hundred and forty-two forms (species and subspecies are treated equally) are discussed in the main body of the book as comprising the bird fauna of the state. Another (the Common Redpoll) is inserted in the "Addenda," to bring the total to 443. Not all, however, have been collected within the state. Accidentals, also, are included in the main body.

Each form is listed under its common name, followed by the scientific name and the meaning of the Latinized words. Local names also are given. These are followed by a brief description of the bird, its range, and its status in South Carolina. The general account appears next, under the heading "History." Here are given not only the present abundance but also the former abundance and distribution when known to be significantly different from the present. Seasonal occurrence is frequently mentioned, earliest and latest nesting records, and field characteristics often are given. The last paragraph heading is "Food." When, however, treatment is given to two or more subspecies of one species, the food habits of but one are discussed, to which the others are said to be essentially similar.

I am not convinced that in a work of this sort equal treatment should be given species and subspecies, for in nature they usually are not equivalents. In a group so structurally compact as birds, whose subspecies seldom are reliably identifiable in the field and frequently only with difficulty in the museum, and whose individuals are highly mobile, it is easy to overemphasize these geographic units. In **South Carolina Bird Life** each form is numbered, from 1 to 443. Thus it would appear that the state list contains 443 kinds of birds. However, an analysis of the book reveals 362 species (kinds), of which 62 contribute 143 subspecies to the state. I would prefer to see species given major headings and subspecies subordinate positions beneath these.

The paintings are very good and are excellently reproduced. Eleven are by Francis Lee Jacques, 10 by Roger Tory Peterson, 10 by Edward von S. Dingle, and 4 by John Henry Dick. Many of the 49 photographs are truly beautiful and all have been reproduced with great care. They and the paintings add immeasurably to the attractiveness of the volume, as does the whole make-up of the book, from typography to paper and binding.

In summary, it may be said that this attractive volume is packed with information about birds in South Carolina. Space is not wasted with lengthy descriptions or with generalizations about habits or with other material which may be found in other readily available books. It is an important work in American ornithology. All who had a hand in its production are to be commended and congratulated.

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DUES FOR 1951. Prompt payment of your 1951 dues will greatly assist your officers, all of whom devote many hours of labor to K. O. S. business. Send the money to the Secretary-treasurer, **Mrs. S. Charles Thacher, 2918 Brownsboro Road, Louisville 6, Ky.** Why not increase your support to the society by becoming a contributing member ($5.00) or a life member ($50.00)?

CHRISTMAS BIRD COUNT. Be sure to plan for a bird count during the holiday season. The K. O. S. does not require that the count be made during Christmas week. We will gladly accept a count made any time between December 15 and January 20. Count every bird, take the temperature and wind direction, arrange birds as in Peterson's Guide, and send the list to Gordon Wilson.